



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

April 22, 2016

Walter Talarek  
Agent for W. Neudorff GMBH KG  
1008 Riva Ridge Dr.  
Great Falls, VA 22066

Subject: Notification per PRN 98-10 – Addition of optional marketing statements and three alternate brand names  
Product Name: Cueva 2.4 Copper Soap  
EPA Registration Number: 67702-39  
Application Date: 4/7/2016  
Decision Number: 516028

Dear Mr. Talarek:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The following alternate brand names have been added to the product record.

- HydroWorxx Disease Control Concentrate
- HydroPower Disease Control Concentrate
- HydroCraft Disease Control Concentrate

The label submitted with the application has been stamped "Notification" and will be placed in our records.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you have any questions, please contact Lindsay Roe by phone at 703-347-0506, or via email at [roe.lindsay@epa.gov](mailto:roe.lindsay@epa.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "Lindsay Roe" with a stylized flourish at the end.

Tony Kish, Product Manager 22  
Fungicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

# CUEVA 2.4 COPPER SOAP

Flowable Liquid Copper Fungicide

(ABN: HydroWorxx Disease Control Concentrate)

(ABN: HydroPower Disease Control Concentrate)

(ABN: HydroCraft Disease Control Concentrate)

## NOTIFICATION

67702-39

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

04/22/2016

### Active Ingredient:

Copper Octanoate (Copper Soap) 2.4%  
CAS Reg. No. 20543-04-8

Other Ingredients 97.6%

**Total** 100.0%

metallic copper equivalent 0.4%

one gallon contains 0.04 lbs. metallic copper equivalent

SUBLABEL A: Home and Garden Use

SUBLABEL B: Commercial Agricultural Use

EPA REG. NO. 67702-39

EPA EST. NO.

**KEEP OUT OF REACH OF CHILDREN**

## CAUTION

Registrant: W. Neudorff GmbH KG

An der Muhle 3, Postfach 1209

31860 Emmerthal, Germany

[www.neudorff.com](http://www.neudorff.com)

Home and Garden Use: NET CONTENTS: 16 ounces, 24 ounces, 32 ounces, 1 gallon, 2.5 gallons, 5 gallons, 10 gallons, 20 gallons, 40 gallons, 45 gallons, 50 gallons, 55 gallons, 200 gallons or 250 gallons

Commercial Agricultural Use: NET CONTENTS: 1 gallon, 2.5 gallons, 5 gallons, 10 gallons, 20 gallons, 40 gallons, 45 gallons, 50 gallons, 55 gallons, 200 gallons or 250 gallons

**SUBLABEL A: Home and Garden Use**

**CUEVA 2.4 COPPER SOAP**

Flowable Liquid Copper Fungicide

(ABN: HydroWorxx Disease Control Concentrate)

(ABN: HydroPower Disease Control Concentrate)

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**EPA REG. NO. 67702-39**

**EPA EST. NO.**

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

NET CONTENTS: 16 ounces, 24ounces, 32 ounces, 1 gallon, 2.5 gallons, 5 gallons, 10 gallons, 20 gallons, 40 gallons, 45 gallons, 50 gallons, 55 gallons, 200 gallons or 250 gallons

<b>FIRST AID</b>	
<b>IF IN EYES</b>	-Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. -Call a poison control center or doctor for treatment advice.
<b>IF ON SKIN OR CLOTHING</b>	-Take off contaminated clothing. -Rinse skin immediately with plenty of water for 15-20 minutes. -Call a poison control center or doctor for treatment advice.
<b>IF SWALLOWED</b>	-Call a poison control center or doctor immediately for treatment advice. -Have person sip a glass of water if able to swallow. -Do not induce vomiting unless told to by a poison control center or doctor. -Do not give anything by mouth to an unconscious person

Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call the poison control center at 1-800-222-1212.

## **PRECAUTIONARY STATEMENTS**

### **Hazards to Humans and Domestic Animals**

**CAUTION:** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

### **Environmental Hazards**

This product is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas. To protect the environment, do not allow pesticide to enter or run off into storm drains, drainage ditches, gutters or surface waters. Applying this product in calm weather when rain is not predicted for the next 24 hours will help to ensure that wind or rain does not blow or wash pesticide off the treatment area.

Rinsing application equipment over the treated area will help avoid run off to water bodies or drainage systems. Do not contaminate water when disposing of equipment wash water or rinsate. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.

## **DIRECTIONS FOR USE**

*It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.*

Read and follow all applicable directions and precautions on this label before using.

Do not allow adults, children or pets to enter the treated area until sprays have dried. Do not apply this product in a way that will contact adults, children or pets, either directly or through drift.

### **Application Directions**

[Registrant may choose one of the following application directions.]

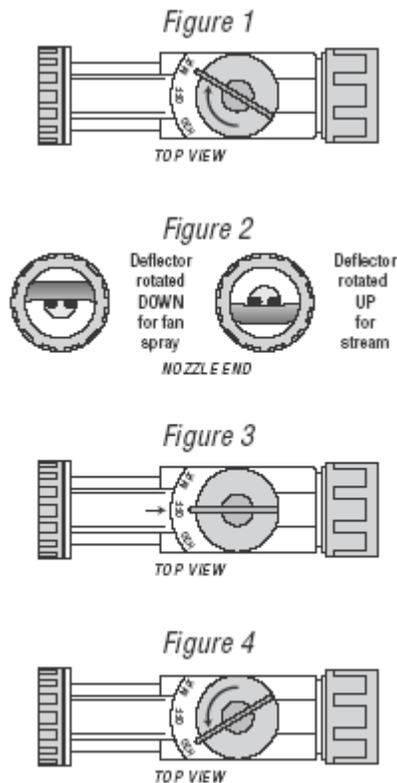
[For containers with no hose end sprayer:]

Shake container well before use. Mix 2.6-10.7 fl. oz. of Cueva 2.4 Copper Soap in a gallon of water. Use the lower rate as a preventative spray or for low disease pressure. Use the higher rate for high disease pressure. Spray all plant parts thoroughly (top and

bottom of leaves) just before the point of drip. Apply as soon as disease appears, or as a preventive spray 2 weeks before disease normally appears, or when weather forecasts predict a long period of wet weather. If possible, time applications so that at least 12 hours of dry weather follows application. Repeat as needed, following the application directions and reapplication intervals in the table below [opposite][on the following page(s)]:

[Or for containers with hose end sprayers, the paragraph below plus one of the following hose end sprayer directions may be used (hose end sprayer must deliver a 1:20 dilution):]

Spray all plant parts thoroughly (top and bottom of leaves) just before the point of drip. Apply as soon as disease appears, or as a preventive spray 2 weeks before disease normally appears, or when weather forecasts predict a long period of wet weather. If possible, time applications so that at least 12 hours of dry weather follows application. Repeat as needed, following the application directions and reapplication intervals in the table below [opposite][on the following page(s)]:



#### To Use This Sprayer:

1. Shake container well before use.
2. Connect spray nozzle to garden hose.

3. Turn on the water from the faucet. Extend hose to the farthest area to be treated and work back toward the faucet so you don't come in contact with the treated area.
4. When you are ready to spray, turn the knob on top so that it points to the MIX position on the spray head. (Fig. 1). Product will automatically mix with water.
5. The spray deflector on the front of the hose-end applicator can be rotated to give a stream or fan spray. (Fig. 2)

To Stop Spraying:

6. When you are finished spraying or if you have to stop spraying at any time, turn the knob back to the OFF position. (Fig. 3)
7. Turn off the water from the faucet.
8. Turn the knob to H2O then OFF, to drain the water from the hose. (Fig. 4)

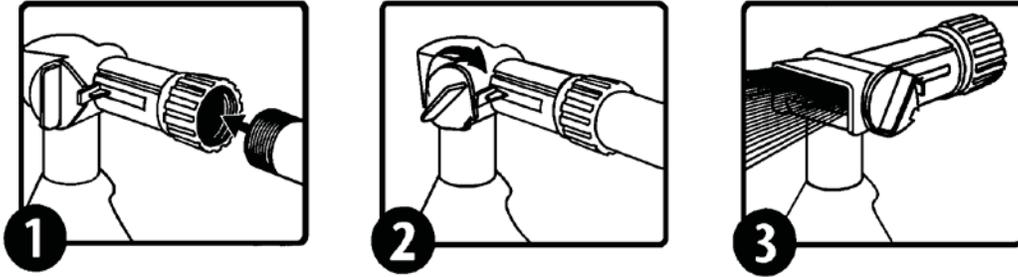
OR

To Use This Sprayer:

1. Shake container well before use. Attach garden hose to spray nozzle. Turn on water supply.
2. Bend safety tab down and turn control to "water".
3. Point nozzle toward plants and turn water control knob to "On". Product will automatically mix with water. Spray upper and lower leaf surfaces thoroughly to just before point of drip.

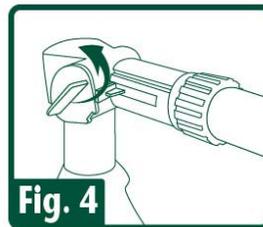
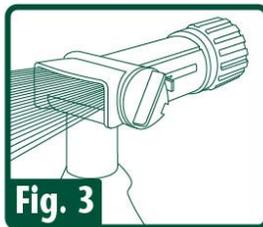
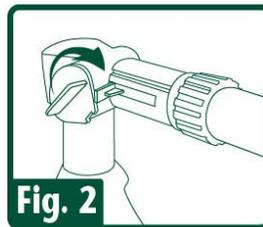
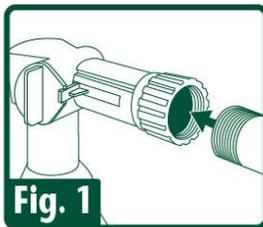
To Stop Spraying:

1. When you are finished spraying or if you have to stop spraying at any time, turn the blue knob back to the OFF position.
2. Turn off the water from the faucet.
3. Turn the blue knob to H2O then OFF, to drain the water from the hose.
4. Unscrew spray nozzle from hose. Remove hose end from container.
5. Reseal the container with the child-resistant closure. Rinse the hose-end applicator.



OR

1. Shake container well before use.
2. Connect a garden hose to the Ready Spray nozzle. Make sure the dial on the nozzle is in the “OFF” position with the safety tab in the valve notch.
3. Turn on the water at faucet. Extend hose to the farthest area to be treated and work back toward the faucet so you don’t come in contact with the treated area.
4. To BEGIN spraying, point nozzle toward treatment site and
  - a. Bend the safety tab back (located at the right of the yellow dial) with your thumb,
  - b. Using your other hand, QUICKLY turn the dial clockwise until it stops. Water will automatically mix with the product.
5. Spray upper and lower leaf surfaces thoroughly to just before point of drip. Walk at a steady pace while spraying using an even sweeping motion, slightly overlapping treated areas.
6. To STOP spraying, QUICKLY turn the dial in the opposite direction of “ON” until it stops and the safety tab engages the notch on the valve. Turn water off at faucet. To relieve pressure before removing nozzle from hose, bend the safety tab back and turn dial “ON” until water stops spraying.
7. To STORE unused product, make sure the dial is in the “OFF” position with safety tab in the valve notch. Place in cool area away from heat, sunlight or open flame.



End of optional hose-end sprayer section]

### Specific Plant Application Directions

	Crop	Reapplication Interval and Application Notes
Fruit and Nut Trees, Berries and Vines	Almonds	Do not reapply within five days in the growing season. Do not reapply within 7 days in the dormant season.
	Blueberry, Citrus, Walnut, Blackberry, Raspberry, Strawberry	Do not reapply within 7 days. On strawberries, spray 1 month after planting or before flowering on established plants. For citrus, apply 1-3 weeks after petal fall. Repeat every 2 weeks if necessary until the fruit is 3 inches in diameter. Use caution as copper may cause phytotoxicity under some conditions. Do not mix with other products on citrus.
	Hazelnut (filbert)	Do not reapply within 14 days.
	Pome Fruit (apple, pear, quince)	Do not reapply within five days in the growing season. Do not apply more than once in the dormant season. For fireblight control, apply this product in the dormant period, during bloom, or growing season. Use caution in applications after blossom drop; copper may cause russetting of susceptible apple varieties.
	Stone Fruit (apricot, cherry, nectarine, peach, plum, prune)	Do not reapply within five days in the growing season. Do not reapply within 7 days in the dormant season. Do not apply more than six times in the growing season. For bacterial canker, apply in fall and at late dormant, as buds begin to swell. Repeat at the bud burst stage and weekly thereafter as needed. For blossom brown rot, apply at delayed dormant (bud swell), popcorn, full bloom, and petal fall stages. Do not apply to peaches or nectarines at or after full bloom. For Coryneum blight (shot hole) and peach leaf curl, apply as a dormant spray in late fall to before bud break.
	Currant, gooseberry, hops	Do not reapply within 10 days.
	Grapes	Do not reapply within 3 days. Do not

		mix this product with lime. Certain Vinifera and French Hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn.
	Kiwi	Do not reapply within 30 days.
	Melons (cantaloupe, citron melon, honeydew, muskmelon, watermelon)	Do not reapply within 5 days.
Vegetables		
	Tomato, Pepper	Do not reapply within 3 days.
	Artichoke, Bean, Carrot, Celery, Chard, Corn, Crucifer Crops (Bok Choy, Broccoli, Brussel sprouts, Cauliflower, Cabbage, Kale, Kohlrabi, Mustard greens, Pak-choi), Eggplant, Garlic, Leek, Onion, Pea, Shallot, Spinach	Do not reapply within 7 days.
	Beet, rutabaga, turnip	Do not reapply within 10 days.
	Cucurbits (Cucumbers, Squash, Pumpkin, Zucchini), Lettuce, Potatoes	Do not reapply within 5 days. Use caution on lettuce, as some varieties are copper sensitive.
Herbs	coriander, mint, parsley, rosemary	Do not reapply within 10 days.
	Chives, Dill	Do not reapply within 7 days.
Turf		Do not reapply within 10 days. [If sold without a hose end sprayer insert the use directions: Mix 6.7 to 26.7 fluid ounces with 2.5 gallons of water and apply to 1,000 sq. ft every 10 days]
Ornamentals		Do not reapply within 7 days. Pine: Apply when new needles are just emerging. Roses: In damp, cool conditions (below 60°F), phytotoxicity is likely to occur. Sycamore: Make first application before buds begin to swell and repeat twice, at 7-day intervals.

This product controls the following diseases: Alternaria blight, *Anthracnose* leaf and fruit spot, *Ascochyta* leaf and pod spot, Bacterial blights (halo, common and brown spot), Downy mildew, Gray mold (*Botrytis*), Powdery mildew, White mold (*Sclerotinia*),

*Cercospora* leaf spot and blight (earlyblight), White rust, Powdery Mildew, *Alternaria* leaf blight and brown spot, *Septoria* (late) blight, Melanose spot, greasy spot, citrus scab, citrus canker, *Phytophthora* brown rot, Southern corn leaf blight, Stalk rot, Stewart's wilt, Angular leaf spot, Scab, *Ulocladium* leaf spot, *Phyllosticta*, Neck rot (*Botrytis*), Bacterial soft rot, Bacterial leaf scorch, Cedar Apple Rust, Fireblight, Sooty Blotch, Flyspeck, Quince Rust, Mucor fruit rot, Rhizopus fruit rot Bacterial canker (*Pseudomonas syringae*), Brown rot, blossom blight, Bacterial leaf spot, *Mycosphaerella* leaf spot, *Phornopsis* leaf blight, blackspot, rusts, Rhizoctonia blight, *Colletotrichum* needle blight, needle blight, dollar spot.

### **Application Notes and Use Restrictions:**

Note: This product may cause some copper toxicity on sensitive plant species, such as some rose or grape varieties. Before spraying a specific plant species, consult your State Experiment Station or make a test spray. Copper toxicity appears as purple spots on the leaves.

### **STORAGE AND DISPOSAL**

**Pesticide Storage:** Store in a secure place, away from open fire or flame. Keep container closed and reseal after use. Product may be damaged by freezing. Do not store product below 4°C. If spilled, use absorbent materials and dispose of in an approved manner.

[for containers sizes up to 1 gallon use:]

#### **Pesticide Disposal and Container Handling**

Nonrefillable container. Do not reuse or refill this container.

**If empty:** Place in trash or offer for recycling if available.

**If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

[for container sizes 2.5 to 45 gallons use:]

#### **Pesticide Disposal and Container Handling**

Nonrefillable container. Do not reuse or refill this container.

**If partly filled:** Call your local solid waste agency for disposal instructions. Never place unused product down any indoor or outdoor drain.

**If empty:** Triple rinse container promptly after emptying. [For containers equal to or less than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[For containers greater than 5 gallons] Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one

complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[for container sizes over 45 gallons use:]

**Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container. Triple rinse container promptly after emptying. Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

#### **BATCH CODE**

[Optional statements:

- This [16 fl. oz.] bottle will treat up to 1000 sq. ft.[for use with hose end sprayer]
- This [24 fl. oz.] bottle will treat up to 1500 sq. ft.[for use with hose end sprayer]
- This [32 fl. oz.] bottle will treat up to 2000 sq. ft.[for use with hose end sprayer]
- This [1 gallon] bottle will treat up to 8000 sq. ft.[for use with hose end sprayer]
- Copper Soap Fungicide
- For Roses, Listed Fruits & Listed Vegetables
- Controls Powdery Mildew, Black Spot & Rust!
- Controls Powdery Mildew and other listed diseases
- Where to use
  - Ornamentals and Turf
  - (Listed Vegetables), (Listed Fruits), and (Listed Nuts)
- Can be used up to day of harvest
- Use up to day of harvest
- Controls diseases that may go dormant and overwinter.
- Protects buds and flowers
- Disease controlled includes (anthracnose) (fire blight) (peach leaf curl) (downy mildew)
- Manufactured under a license of Neudorff.
- Roses & Ornamentals: Controls black spot, rust, powdery and downy mildew.
- Listed Fruit Trees: Controls peach leaf curl, brown rot, fireblight, scab, blossom blight, leaf and fruit spot
- Listed Vegetables: Controls (powdery mildew), (downy mildew), (botrytis), (alternaria leaf blight) and (septoria leaf spot).

- Lawns: Controls (leaf blight), (leaf spot), (dollar spot) and (rust).
- Use as a dormant spray for peach leaf curl.
- Controls peach leaf curl.
- Use for early and late blight on tomatoes (and potatoes).
- Controls powdery mildew
- Lawn and Garden Fungicide
- Lawn Fungicide
- Controls (leaf blight), (leaf spot), (dollar spot), and (rust) on lawns
- Prevents and controls harmful (major) lawn diseases (including leaf blight, leaf spot, dollar spot and rust)
- Ready-to-Spray lawn fungicide [for use with hose end sprayer]
- Controls listed plant diseases using low concentrations of copper.
- Used to control a wide range of listed plant diseases: (powdery mildew), (rusts), (blackspot), (leaf & fruit spot), (downy mildew), (fruit rot), (late blight).
- Dormant and growing season liquid copper fungicide.
- Dormant and growing season (disease) (fungicide)
- Disease control for listed fruits and vegetables
- Fungicide for ornamentals and certain edibles
- Year-round garden disease control
- Fixed copper is one of the oldest fungicides and bactericides, used to control a wide range of listed plant diseases. CUEVA 2.4 COPPER SOAP is a patented, fixed copper fungicide, made by combining a soluble copper fertilizer with a fatty acid. The copper and the fatty acid combine to form a copper salt of the fatty acid, known technically as a true soap. The copper soap fungicide controls listed diseases using low concentrations of copper. The net result is an effective (vegetable), (fruit) and (ornamental) fungicide. CUEVA 2.4 COPPER SOAP decomposes to form soluble copper, and fatty acid, both of which can be used by microbes and plants. CUEVA 2.4 COPPER SOAP is suited for use in domestic circumstances, both indoors and outdoors.
- CUEVA 2.4 COPPER SOAP controls listed diseases of a wide range of plants, including many vegetables, fruit and ornamentals. As with most fungicides, CUEVA 2.4 COPPER SOAP acts to protect plants from infection. Therefore, it is important to have CUEVA 2.4 COPPER SOAP on the leaf, flower or fruit before the pathogen is able to cause an infection.
- A wide range of bacteria and fungi attack plants, however, they generally only cause a few types of diseases. A State Agricultural Extension service can help identify the type of disease in order to use the best method of disease control
- Cultural Controls:
  - Diseases in turf: To reduce disease in turf in frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.
  - Ascochyta leaf blight, Cercospora leaf spots, Dollar spot: To reduce Ascochyta leaf blight mow less frequently, only as necessary to maintain recommended height. Water before noon to allow grass to dry. Water thoroughly only as required to avoid moisture stress.
  - Rust: To reduce rust mow frequently to reduce rust spore production. Water and fertilize lawn as required to avoid moisture and nutrient stress. Water before noon to allow grass to dry.

**-Powdery mildews** tend to occur on the upper leaf surfaces, as though a white powder was sprinkled onto the plant. Powdery mildews can form a dense, white, cottony mass, making the whole leaf appear white. They are also commonly found on stems. Powdery mildews rarely kill plants. Most fungal diseases require water to infect plants. Powdery mildews are unique in that they do not require water for infection. Hence, under greenhouse conditions, powdery mildews can become severe. Shade and dense plantings also promote powdery mildew. Powdery mildews commonly occur on the following plants: bean, beet, broccoli, Brussels sprouts, cauliflower, cabbage, cantaloupe, cucumber, currant, gooseberry, grape, hop, kale, kohlrabi, lettuce, pea, pumpkin, rose, rutabaga, spinach, squash, strawberry, turnip and zucchini.

**-Downy mildews** tend to occur on the lower leaf surfaces. Downy mildews are much finer than powdery mildews, and appear as fine white cotton, similar to duck down. Downy mildews can rapidly kill plant leaves during wet, cool weather, but are inhibited by hot dry weather. Downy mildews commonly occur on the following plants: bean, beet, broccoli, Brussels sprouts, cauliflower, cabbage, cantaloupe, chard, chive, cucumber, garlic, grape, hop, kale, kohlrabi, leek, lettuce, onion, pea, pumpkin, rutabaga, shallot, spinach, squash, turnip and zucchini.

**-Leaf and fruit spots** are small brown or black spots on the leaf or fruit. They commonly occur on apple and pear (scab), as well as on most of the plants grown around the home and in the garden. These spots can be caused by a range of fungi and bacteria. Leaf and fruit spots are commonly caused by fungi belonging to the following genera: *Alternaria*, *Cercospora*, *Colletotrichum*, *Cylindrosporium*, *Gloeosporium*, *Glomerella*, *Gnomonia*, *Marssonina*, *Mycosphaerella (Didymella)*, *Phomopsis*, *Phyllosticta*, *Septoria*, and *Sphaceloma*. Spots on leaves and fruit can expand and grow together. Leaf spot pathogens require water to infect plants. During wet weather, spots can develop into a **blight**, very rapidly, killing leaves, flowers and stems.

**-Rusts** are small orange blisters that appear on plant leaves, and that are full of orange powder. The orange powder is rust spores. Towards the end of the season, black spores are often produced. Rust is commonly found on grasses.

**-Fruit rots** commonly occur on strawberries, raspberries, and other fruit. They appear as soft, rotten areas on the fruit. Often the causal fungus can be seen growing and producing spores on the surface of the rotting area. Rots are often caused by fungi belonging to the following genera: *Aspergillus*, *Botrytis*, *Monilinia*, *Mucor*, *Penicillium*, *Rhizopus* and *Sclerotinia*.

-Designed for GardenPro (Independent) Retailers

-[Insert brand name] & your environment – your home and yard are places for family and pets to enjoy. That’s why [brand name] products are designed with care to provide effective solutions to problems inside and outside your home. For best results please follow instructions for appropriate usage, storage and disposal.

-[telephone icon] Questions, Comments, Call X-XXX-XXX-XXXX [insert a supplemental registrant's telephone number] [insert company website] [computer icon]

-www.neudorff.com



-Cueva™ is a trademark of W. Neudorff GmbH KG

-Contains Cueva™ Fungicide Concentrate, a trademark of W. Neudorff GmbH KG

-Made with Cueva™ Fungicide Concentrate, a trademark of W. Neudorff GmbH KG



-For Organic Gardening



-Listed by the Organic Materials Review Institute (OMRI) for use in gardening of organic food

-Listed by the Organic Materials Review Institute (OMRI) for use in organic gardening

-Cultural Method to Assist in Reducing Plant Disease

Several common sense techniques can also be used to reduce plant disease. These include:

- Inspect the plants often for signs of disease or insect pests. Take appropriate measures when warranted.
- Promote healthy plant growth, but do not over fertilize.
- Do not grow the same types of plants in the same location in successive years.
- Control weed species around the garden that are related to the plant species that you are growing. Weeds are a source of plant pathogens.
- Space plants to ensure good airflow and drying after rain. Also, water plants in the morning to minimize the time that the plants are wet. Wet leaves, flowers and fruit promote infections by plant pathogens.
- Prune plants during dry weather to avoid wound infections.
- At the end of the growing season, remove and compost all garden refuse. Garden refuse can act as a source of plant pathogens.]

The registrant may use one of these optional statements, either:

### **NOTICE TO BUYER**

Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. To the extent consistent with applicable law, buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

OR

Unconditionally guaranteed by W. Neudorff GmbH KG. If for any reason you are not satisfied with this product, send proof of purchase to the address shown and we will gladly refund your purchase price.

Registrant: W. Neudorff GmbH KG, Postfach 1209, An der Mühle 3,  
31860 Emmerthal, Germany

US Patent Number: 5,246,716

**SUBLABEL B: Commercial Agricultural Use**

**CUEVA 2.4 COPPER SOAP**

Flowable Liquid Copper Fungicide

(ABN: HydroWorxx Disease Control Concentrate)

(ABN: HydroPower Disease Control Concentrate)

(ABN: HydroCraft Disease Control Concentrate)

Active Ingredient:

Copper Octanoate (Copper Soap) 2.4%  
CAS Reg. No. 20543-04-8

Other Ingredients 97.6%

**Total** 100.0%

metallic copper equivalent 0.4%

one gallon contains 0.04 lbs. metallic copper equivalent

**EPA REG. NO. 67702-39**

**EPA EST. NO.**

**KEEP OUT OF REACH OF CHILDREN**

**CAUTION**

NET CONTENTS: 1 gallon, 2.5 gallons, 5 gallons, 10 gallons, 20 gallons, 40 gallons, 45 gallons, 50 gallons, 55 gallons, 200 gallons or 250 gallons

<b>FIRST AID</b>	
IF IN EYES	-Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. -Call a poison control center or doctor for treatment advice.
IF ON SKIN OR CLOTHING	-Take off contaminated clothing. -Rinse skin immediately with plenty of water for 15-20 minutes. -Call a poison control center or doctor for treatment advice.
IF SWALLOWED	-Call a poison control center or doctor immediately for treatment advice. -Have person sip a glass of water if able to swallow. -Do not induce vomiting unless told to by a poison control center or doctor. -Do not give anything by mouth to an unconscious person
Have the product container or label with you when calling a poison control center or doctor or going for treatment. For emergency information concerning this product, call the poison control center at 1-800-222-1212.	

## PRECAUTIONARY STATEMENTS

### Hazards to Humans and Domestic Animals

**CAUTION:** Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with skin, eyes or clothing. Wash hands thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

**Personal Protective Equipment (PPE):** Some materials that are chemical-resistant to this product are listed below. If you want more options, follow the instructions for category A on an EPA chemical resistance category selection sheet. Mixers/loaders and other handlers must wear the following: long-sleeved shirts, long pants, chemical resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber or butyl rubber, and shoes plus socks.

### USER SAFETY REQUIREMENTS

- Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.
- Discard clothing and other absorbent material that have been drenched or heavily contaminated with the product's concentrate. Do not reuse them.

### User Safety Recommendations

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### Environmental Hazards

This product is toxic to fish and aquatic invertebrates and may contaminate water through runoff. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. Drift and runoff may be hazardous to aquatic organisms in water adjacent to treated areas.

For terrestrial uses: Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwater or rinsate.

## **DIRECTIONS FOR USE**

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a manner that will contact workers or other persons, either directly or through drift. Only protected workers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Read and follow all applicable directions and precautions on this label before using.

### **Agricultural Use Requirements**

Use this product in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), restricted-entry interval, and notification to workers. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard (WPS).

**Entry-Restrictions:** Do not enter or allow worker entry into treated areas during the restricted-entry interval of 4 hours.

PPE required for early-entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, wear: long sleeved shirt, long pants, shoes, socks and chemical-resistant gloves made of any waterproof material, such as polyvinyl chloride, nitrile rubber, or butyl rubber.

### **Non-Agricultural Use Requirements**

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses.

Do not enter or allow others to enter until sprays have dried.

## **DIRECTIONS FOR USE**

Shake well before use. Most conventional liquid pesticide plant sprayers can be used to apply CUEVA 2.4 COPPER SOAP to plants. A spreader may be used to improve the spreading of CUEVA 2.4 COPPER SOAP on hard to wet plants.

## **Tank Mixing CUEVA 2.4 COPPER SOAP with Other Pesticides**

Read and follow all applicable directions and precautions on the label of other products, before mixing with CUEVA 2.4 COPPER SOAP.

CUEVA 2.4 COPPER SOAP can be applied up to day of harvest. When tank-mixed with products, do not apply that product closer to harvest than is permitted or stated on the other product's label.

Pour CUEVA 2.4 COPPER SOAP into spray tank at least half filled with water using adequate agitation. When mixed with other products proven or known to be compatible, wettable powders should be added first, followed in order by flowables (such as CUEVA 2.4 COPPER SOAP), and then emulsifiable concentrates.

CUEVA 2.4 COPPER SOAP can be mixed with Bravo® (WP, 720, 500), Captan, Daconil® 2787, Ferbam, maneb (WP or Flowable), Dithane® M-45, Manzate® 200, sulfur (wetable or flowable), organo phosphates, Thiodan®, *Bacillus thuringiensis* Berliner, Guthion®, Pydrin®, Diazinon®, malathion for use on the crops listed on this label, in accordance with the most restrictive of label limitations and precautions. Do not exceed label dosage rates. This product cannot be mixed with any product containing a label prohibition against such mixing. Do not mix CUEVA 2.4 COPPER SOAP with chelated or liquid fertilizers. Use caution when using product with other fungicides and insecticides. Observe all cautions and limitations on all products used in mixtures.

## **Chemigation**

Apply this product only through sprinkler systems, including center pivot, lateral move, end tow, side (wheel) roll, traveler, bug gun, solid set, or hand move. Do not apply this product through any other type of irrigation system.

Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regular serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced-pressure zone, back flow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior the pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from back flow.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops, or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

The irrigation line or water pump must include a functional pressure switch, which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

## **Spray Drift Management**

A variety of factors including weather conditions (e.g., wind directions, wind speed, temperature, relative humidity) and method of application (e.g. ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

### **Droplet Size**

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

### **Wind Speed**

Do not apply at wind speeds greater than 15mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

#### Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

#### Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

#### Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

#### Additional requirements for aerial applications:

- The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter.
- Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety.
- When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

#### Additional requirements for ground boom application:

- Do not apply with a nozzle height greater than 4 feet above the crop canopy.

#### **Directions for use on [Non-field] Vegetables and [Field-grown] Herbs, [Field Crops], [Nuts], [Fruits including Citrus and Berries]**

Mix 2 to 8 gallons of CUEVA 2.4 COPPER SOAP in 100 gallons of water. Apply 50 to 100 gallons of diluted spray per acre. For best control, begin treatment 2 weeks before disease normally appears or when weather forecasts predict a long period of wet weather. Alternatively, begin treatment when disease first appears, and repeat at the minimum retreatment interval for the specific crop (using the tables below) until the disease pressure is reduced. Use the 8 gallon rate of CUEVA 2.4 COPPER SOAP, applied at the minimum retreatment interval for the crop, following heavy rain or when the amount of disease is increasing rapidly. If possible, time applications so that 12 hours of dry weather follow application.

CUEVA 2.4 COPPER SOAP may cause some copper toxicity on some plant species.

### **Fruit and Nut Crops**

<b>DO NOT apply more than 8 gallons of product per acre per application</b>		
<b>Crop</b>	<b>Disease Controlled</b>	<b>Specific Use Instructions</b>
Almonds	Bacterial spot, Bacterial canker ( <i>Pseudomonas syringae</i> ), Brown rot, Blossom blight, leaf and fruit spots, Coryneum blight (shot-hole), Anthracnose	For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In fall, spray again at 10 and 80% of leaf fall. For brown rot blossom blight, apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. During wet weather, additional bloom sprays may be necessary. Do not apply more than 491 gallons of product per acre per year. Do not reapply within 5 days during the growing season or within 7 days during the dormant season.
Blueberries	Gray mold, mucor fruit rot, Rhizopus fruit rot	Apply at the start of flowering and continue every 7 to 10 days until harvest. Do not apply more than 229 gallons of product per acre per year. Do not reapply within 7 days.
Caneberries (Blackberries, Raspberries)	Gray mold, mucor fruit rot, Rhizopus fruit rot	Apply at the start of flowering and continue every 7 to 10 days until harvest. Do not apply more than 273 gallons of product per acre per year. Do not reapply within 7 days.
Citrus (Grapefruit, Lemon, Lime, Orange, Pummelo, Tangerine)	Melanose spot, greasy spot, citrus scab, Alternaria brown spot, citrus canker, <i>Phytophthora</i> brown rot, and <i>Septoria</i> .	Repeat every 2 weeks if necessary. May cause phytotoxicity if conditions are conducive, when mixed with other products, or when applied to citrus seedlings grown in greenhouses or shadehouses. Do not apply more than 343 gallons of product per acre per year. Do not reapply within 7 days.
Currants, Gooseberries	Powdery mildew	Do not apply more than 436 gallons of product per acre per year. Do not reapply within 10 days.
Grapes	Downy mildew, black rot, phomopssis cane, leaf spot, powdery mildew, gray mold	Begin treatment when new growth reaches ½ inch and repeat at 7 to 14 day intervals throughout the growing season. Use Precaution: Do not mix CUEVA 2.4 COPPER SOAP with lime. Certain Vinifera and French Hybrid varieties may be sensitive to copper sprays resulting in marginal leaf burn. Before spraying these varieties, consult your State Experiment Station or make test sprays. Do not apply more than 545 gallons of product per acre per year. Do not reapply within 3 days.

<p>Pome Fruits (Apples, Pears, Quince)</p>	<p>Anthracnose, Cedar Apple Rust, Fireblight, Scab, Sooty Blotch, Flyspeck , Quince Rust</p>	<p>For fireblight control, apply Cueva in the dormant period, during bloom, or in-season cover spray applications. May cause russetting of susceptible apple varieties. Do not exceed the 4.0 gallon/100 gal water use rate.</p> <p>Do not apply more than 436 gallons of product per acre per year. Do not reapply within 5 days during the bloom/growing season. Do not apply more than once each during the fall/late dormant season and between silver tip and green tip.</p>
<p>Strawberries</p>	<p>Gray mold, mucor fruit rot, Rhizopus fruit rot, angular leaf spot, leaf scorch, mycosphaerella leaf spot, phomopsis leaf blight, powdery mildew, septoria leaf spots, anthracnose fruit rot</p>	<p>Apply at the start of flowering and continue every 7 to 10 days until harvest. Do not apply more than 223 gallons of product per acre per year. Do not reapply within 7 days.</p>
<p>Stone Fruits (Apricots, Cherries, Peaches, Nectarines, Plums)</p>	<p>Bacterial spot, Bacterial canker (<i>Pseudomonas syringae</i>), Brown rot, Blossom blight, leaf and fruit spots, Coryneum blight (shot-hole), Anthracnose</p>	<p>For bacterial canker, apply as a dormant spray as buds begin to swell, repeating at the bud burst stage, and weekly thereafter as needed, up to six sprays. In fall spray again at 10 and 80% of leaf fall. For brown rot blossom blight, apply full cover spray at delayed dormant (bud swell), popcorn, full bloom and petal fall stages. During wet weather, additional bloom sprays may be necessary. For peach leaf curl apply as a dormant spray in late fall during a period of dry weather. Do not apply more than 491 gallons of product per acre per year. Do not reapply within 5 days during the bloom/growing season or within 7 days during the dormant to pink bud season.</p>
<p>Walnuts</p>	<p>Blight</p>	<p>Make first application when leaflets start to unfold (prior to, but no later than 1% pistulate bloom) and repeat weekly as needed, especially until seasonal rainfall stops. When rain threatens, additional applications are important, applied before or immediately after the rain. Do not apply more than 872 gallons of product per acre per year. Do not reapply within 7 days.</p>

**[Greenhouse and Shadehouse Vegetables, Herbs] and/or [Field Crops]**

<b>DO NOT apply more than 8 gallons of product per acre per application.</b>		
<b>Crop</b>	<b>Disease(s) Controlled</b>	<b>Application Notes</b>
Artichoke	Powdery mildew, bacterial spot, bacterial soft rot and bottom rot	For powdery mildew, plants that are very susceptible should be sprayed twice a week during the first 2 weeks after emergence, and weekly thereafter. On outdoor plants, reapply after rain. Do not apply more than 72 gallons of product per acre per year. Do not reapply within 7 days.
Bean, Pea	Anthrachnose leaf and fruit spot, Ascochyta leaf and pod spot, Bacterial blights (halo, common and brown spot), Downy mildew, Gray mold (Botrytis), Powdery mildew, White mold (Sclerotinia)	For powdery mildew, plants that are very susceptible should be sprayed at the minimum retreatment interval. On outdoor plants, reapply after rain. For white mold, to prevent floral infection, apply CUEVA 2.4 COPPER SOAP at 25% bloom. For peas, do not apply more than 108 gallons of product per acre per year. For beans, do not apply more than 129 gallons of product per acre per year. Do not reapply within 7 days.
Beet, Spinach	Chard, Cercospora leaf spot, Downy mildew, Powdery mildew, White rust	For beets, do not apply more than 214 gallons of product per acre per year. For chard or spinach, do not apply more than 108 gallons of diluted spray per acre per year. Do not reapply within 10 days on beets or within 7 days on chard or spinach.
Carrot	Alternaria leaf blight, Bacterial leaf blight, Cercospora leaf blight	Do not apply more than 136 gallons of product per acre per year. Do not reapply within 7 days.
Celery and celeriac	Bacterial leaf spot, Cercospora (early) blight, Septoria (late) blight	Do not apply more than 144 gallons of product per acre per year. Do not reapply within 7 days.
Corn (Field and Sweet)	Alternaria blight, Anthracnose, Ascochyta leaf and pod spot, Bacterial blights (halo, common, and brown spot), Bacterial leaf	Do not apply more than 114 gallons of product per acre per year. Do not reapply within 7 days.

	spot, Downy mildew, Gray mold, Southern leaf blight, Cercospora leaf blight, Common or Southern Rust, Gray Leaf Spot, Stewart's Wilt, Bacterial Stalk Rot	
Crucifer Crops (Bok Choy, Broccoli, Brussel sprouts, Cauliflower, Cabbage, Kale, Kohlrabi, Mustard, Pak-choi, Rape greens)	Alternaria blight, Bacterial leaf spot, Downy mildew, Powdery mildew, White mold (Sclerotinia)	For white mold, to reduce floral infection apply CUEVA 2.4 COPPER SOAP at 25% bloom. Do not apply more than 72 gallons of product per acre per year. Do not reapply within 7 days.
Rutabaga, turnip	Alternaria blight, Bacterial leaf spot, Downy mildew, Powdery mildew, White mold (Sclerotinia)	Do not apply more than 214 gallons of product per acre per year. Do not reapply within 10 days.
Cucurbits (Cucumbers, Cantaloupe, Squash, Pumpkin, Zucchini)	Alternaria blight, scab, Angular leaf spot, Antracnose, Downy mildew, Gray mold, Ulocladium leaf spot, Bacterial spot, Powdery mildew	On plants that are very susceptible to powdery mildew, such as greenhouse-grown cucumber, it is best to spray the plants every five days during the first 2 weeks after emergence, and weekly thereafter. On outdoor plants, reapply after rain. Do not apply more than 143 gallons of product per acre per year. Do not reapply within 5 days.
Ginseng	Alternaria blight, Botrytis blight, Phytophthora, Powdery mildew	Do not apply more than 143 gallons of product per acre per year. Do not reapply within 7 days.
Herbs (chives, coriander, dill, mint, parsley, rosemary)	Anthracnose, Alternaria blight, Bacterial Blight, Botrytis, Downy mildew, Rhizoctonia Leaf blight, Leaf scorch, Leaf spot	Begin applications when environmental conditions favor disease development. Repeat applications every 10 to 14 days as needed to prevent disease infection. For dill, do not apply more than 108 gallons of product per acre per year. For chives, coriander, mint and rosemary, do not apply more than 72 gallons of product per acre. For parsley, do not apply more than 54.5

		gallons of product per acre. Do not reapply within 7 days for dill and chives. Do not reapply within 10 days for coriander, mint, parsley and rosemary.
Soybean*	Bacterial blight, downy mildew,	For protective sprays, make first application when plants are 6-inches high; repeat on a 7 to 14 day schedule if needed, depending on environmental conditions. Do not apply more than 129 gallons of product per acre per year. Do not reapply within 7 days.
Cereal Grains (Wheat, oats, barley)	Helminthosporium spot blotch, Septoria leaf blotch*, Stagonopsora leaf and glume blotch , Stem rust*, Fusarium head blight suppression*, Powdery mildew	Make applications for early season disease control through heading. Addition of adjuvants is recommended. Do not apply more than 28.9 gallons of product per acre per year. Do not reapply within 10 days.
Alfalfa	Cercospora leaf spot, Lewptosphaerulina Leaf Spot, , rust, downy mildew, anthracnose	Do not apply more than 30.5 gallons of product per acre per year. Do not reapply within 30 days. NOTE: Spray injury may occur with sensitive varieties such as Lahontan
Hop	Anthraco nose leaf and fruit spot, Cercospora leaf spot, Downy mildew, Powdery mildew	Do not apply more than 72 gallons of product per acre per year. Do not reapply within 10 days.
Lettuce, Endive, Radicchio	Bacterial soft rot and bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot	For powdery mildew, plants that are very susceptible should be sprayed every five days during the first 2 weeks after emergence, and weekly thereafter. Use Precaution: Use lower rate on copper sensitive varieties of lettuce. Do not apply more than 218 gallons of product per acre per year. Do not reapply within 5 days.
Chicory	Bacterial soft rot and bottom rot, Downy mildew, Powdery mildew, Septoria leaf spot	Do not apply more than 214 gallons of product per acre per year. Do not reapply within 10 days.
Onion, Garlic, Leek, Shallot	Botrytis leaf blight, Downy mildew,	Do not apply more than 164 gallons of product per acre per year. Do not reapply

	Neck rot, Bacterial soft rot	within 7 days.
Peanuts	Leaf spots (early and late), web blotch, Sclerotinia blight	For leaf spots and web blotch, begin spray when disease first appears, or for best control begin early, usually 25 to 40 days after emergence and repeat at 10 to 14 days until harvest. For Sclerotinia blight, make first application at first bloom and repeat every 7 to 14 days until harvest. Use higher rates of CUEVA 2.4 COPPER SOAP where Sclerotinia blight infection is expected to be heavy. Do not apply more than 129 gallons of product per acre per year. Do not reapply within 7 days.
Tomato, Potato, Eggplant, Pepper	Anthracnose, Bacterial speck, Bacterial spot, Cercospora leaf spot, Early blight, Gray mold, Late blight, Leaf mold, Septoria leaf spot.	Use 2.0 gallons CUEVA 2.4 COPPER SOAP in 50 to 100 gallons of water when spraying to control late blight. On tomatoes, do not apply more than 218 gallons of product per acre per year. On potatoes, do not apply more than 681 gallons of product per acre per year. On eggplant, do not apply more than 215 gallons of product per acre per year. On peppers, do not apply more than 323 gallons of product per acre per year. On tomatoes and peppers, do not reapply within 3 days. On potatoes, do not reapply within 5 days. On eggplant, do not reapply within 7 days.
Tobacco	Blue mold (Downy mildew)	CUEVA 2.4 COPPER SOAP can be used on tobacco in transplant beds (or on field grown plants). Do not apply more than 218 gallons of product per acre per year. Do not reapply within 10 days.

**\* Not registered for use in California**

### **Directions for Use on Ornamentals**

CUEVA 2.4 COPPER SOAP can be used for controlling diseases on ornamentals grown (under field conditions), in nurseries, greenhouses, interior landscapes and other sites. For control of these diseases on plants grown on a large scale, mix 2 to 8 gallons in 100 gallons of water, and apply to 1 acre. For plants grown on a small scale, mix 2.6 to 10.2 fluid ounces in 1 gallon of water, and spray all plant surfaces thoroughly. When necessary, repeat sprays every 7 to 10 days. CUEVA 2.4 COPPER SOAP may cause some copper toxicity on some plant species. Before spraying a specific plant species,

consult your State Experiment Station or make a test spray. Do Not apply more than 8 gallons of product per acre per application. Do not apply more than 545 gallons of product per acre per year. Do not reapply within 7 days.

### ORNAMENTAL PLANTS

The ornamental species listed below may be treated with CUEVA 2.4 COPPER SOAP. The diseases controlled have been designated with the following codes.

Code	Common name	Causal Pathogen
ANTH	Anthrachnose	<i>Colletotrichum, Glomerella</i>
BOT	Botrytis blight	<i>Botrytis cinerea</i>
BLS	Bacterial leaf spot and blight	<i>Erwinia, Pseudomonas, Xanthomonas</i>
DM	Downy mildew	<i>Plasmopara</i>
LEAFSPOT	Leaf spot (fungal)	<i>Acremonium, Alternaria, Cephalosporium, Cercospora, Colletotrichum, Corynespora, Curvularia, Dactylaria, Drechslera, Exserohilium, Glomerella, Myrothecium, Phyllosticta, Phytophthora</i>
PM	Powdery mildew	<i>Oidium</i>
RHIZC	Rhizoctonia blight	<i>Rhizoctonia</i>
SOFTROT	Soft rot	<i>Erwinia</i>

Ornamental Plant	Common Name	Diseases Controlled
<i>Aechmea fasciata</i>	Urn plant, bromeliad	ANTH, BLS
<i>Aeschynanthus pulcher</i>	Lipstick vine	BOT, LEAFSPOT
<i>Aglaonema</i> species	Chinese evergreen	ANTH, BLS, LEAFSPOT, RHIZC, BLS, SOFTROT
<i>Anthurium</i> species	Tailflower	ANTH, BLS, LEAFSPOT, RHIZC, SOFTROT
<i>Aphelandra squarrosa</i>	Zebra plant	BOT, LEAFSPOT, RHIZC
<i>Araucaria heterophylla</i>	Norfolk Island pine	Colletotrichum needle blight
<i>Asplenium nidus</i>	Bird's nest fern	BLS
<i>Brassaia actinophylla</i>	Schefflera	ANTH, BLS, LEAFSPOT, RHIZC
<i>Caladium</i> species	Caladium	BLS, RHIZC
<i>Calathea</i> species	Rattlesnake plant	BLS, LEAFSPOT
<i>Caryota mitis</i>	Fishtail palm	BLS, LEAFSPOT
<i>Chamaedorea</i> species	various palms	LEAFSPOT
<i>Chrysalidocarpus lutescens</i>	Areca palm	LEAFSPOT
<i>Cissus</i> species	Grape ivy	ANTH, BOT, DM, PM, RHIZC
<i>Codiaeum variegatum</i>	Croton	ANTH, BLS
<i>Cordyline terminalis</i>	Ti plant	ANTH, LEAFSPOT

<i>Chrytanthus</i> species	Bromeliad, earthstar	ANTH
<i>Dieffenbachia</i> species	Dieffenbachia	BLS, LEAFSPOT, RHIZC
<i>Dracaena</i> species	Dracaena, Corn plant	BLS, BOT, LEAFSPOT
<i>Epipremnum aureum</i>	Pothos, Devil's ivy	BLS, RHIZC
<i>Euphorbia milii</i>	Euphorbia	RHIZC
<i>Fatsia japonica</i>	Japanese fatsia	BLS, LEAFSPOT, RHIZC
<i>Ficus benjamina</i>	Weeping fig	LEAFSPOT
<i>Ficus elastica</i>	India-rubber tree	LEAFSPOT, BOT
<i>Fittonia verschaffeltii</i>	Nerve plant	RHIZC
<i>Hedra helix</i>	English ivy	ANTH, BLS, BOT, LEAFSPOT, RHIZC
<i>Hoya carnosa</i>	Wax plant	BOT, LEAFSPOT, RHIZC
<i>Maranta leuconeura</i>	Prayer plant	LEAFSPOT
<i>Monstera deliciosa</i>	Swiss cheese plant	BLS, ANTH, RHIZC, SOFTROT
<i>Nephrolepis exaltata</i>	Boston fern	BSL, BOT, RHIZC
<i>Peperomia</i> species	Peperomia	LEAFSPOT, RHIZC
<i>Philodendron</i> species	Philodendron	ANTH, BOT, LEAFSPOT
<i>Pilea</i> species	Aluminum plant	BLS, ANTH, LEAFSPOT, RHIZC
<i>Platycerium bifurcatum</i>	Staghorn fern	BLS, RHIZC
<i>Polyscias</i> species	Aralia	ANTH, BLS, LEAFSPOT
<i>Rhapis</i> species	Ladyfinger palm	LEAFSPOT
<i>Rhoeo spathacea</i>	Oyster plant	LEAFSPOT
<i>Saintpaulia ionantha</i>	African violet	BLS, BOT, LEAFSPOT, PM
<i>Sansevieria triafasciata</i>	Snake plant	BLS, LEAFSPOT
<i>Schefflera arboricola</i>	Dwarf Schefflera	BLS, LEAFSPOT
<i>Schlumbergera</i> species	Cactus	LEAFSPOT
<i>Sedum</i> species	Sedum	LEAFSPOT
<i>Spathiphyllum</i> species	Spathe flower	LEAFSPOT, RHIZC
<i>Syngonium podophyllum</i>	Nephthytis	BLS, LEAFSPOT, RHIZC
<i>Yucca</i> species	Yucca	LEAFSPOT

<b>Crop</b>	<b>Disease Controlled</b>	<b>Specific Use Instructions</b>
Pine	Needle Blight	Apply when new needles are just emerging. Make a second application 3 weeks later.
ROSE AND ORNAMENTAL SHRUBS (Such as Crape Myrtle, Forsythia, Hydrangea, Willow, Mock-Orange, Deutzia, Pyracantha,	Blackspot, Downy mildew, Gray mold, Leafspots, Powdery mildew, Rust	Begin treatment when new spring growth emerges and repeat every 7 to 10 days for as long as needed to control disease. NEU 1140F COPPER SOAP may cause

Japanese quince, Abelia, Summersweet)		copper toxicity on some rose varieties. Copper toxicity appears as purple spots.
Sycamore	Anthraxnose	Make first application just before buds begin to swell, and repeat twice at 7-day intervals.

## Directions for Use on Turf

CUEVA 2.4 COPPER SOAP is suitable for controlling diseases of turf in golf courses, turf farms, home lawns and other sites. For large areas, mix 2 to 8 gallons in 100 gallons of water and apply to 1 acre. For small areas mix 6.7 to 25.6 fluid ounces with 2.5 gallons of water and apply to 1000 ft<sup>2</sup>. For best control, begin treatment 2 weeks before disease normally appears. Alternatively, begin treatment when disease first appears, and repeat at 10 day intervals for as long as needed. Do Not apply more than 8 gallons of product per acre per application. Do not apply more than 572 gallons of product per acre per year. Do not reapply within 10 days.

### Ascochyta leaf blight, Cercospora leaf spots, Dollar spot

To reduce Ascochyta leaf blight mow less frequently, only as necessary to maintain recommended height. Water before noon to allow grass to dry. Water thoroughly only as required to avoid moisture stress. Apply CUEVA 2.4 COPPER SOAP when disease first appears, and repeat at 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.

### Rust

To reduce rust, mow frequently to reduce rust spore production. Water and fertilize lawn as required to avoid moisture and nutrient stress. Water before noon to allow grass to dry. Apply CUEVA 2.4 COPPER SOAP when disease first appears, and repeat at 10 day intervals for as long as needed. In frequently diseased areas, prune adjacent trees and shrubs to reduce turf shading and to improve air movement.

## PESTICIDE STORAGE AND DISPOSAL

Do not contaminate water, food or feed by storage or disposal.

**Pesticide Storage:** Store in a secure place, away from open fire or flame. Keep container closed and reseal after use. Product may be damaged by freezing. Do not store product below 4°C. If spilled, use absorbent materials and dispose of in an approved manner.

**Pesticide Disposal:** Waste resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**Container Handling:** Nonrefillable container. Do not reuse or refill this container.

[For containers equal to or less than 5 gallons] Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10

seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

[For containers greater than 5 gallons] Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

## **BATCH CODE**

(The following information may or may not be placed, in whole or in part, on the final label:

- The active ingredient in this product is exempt from the requirement for a tolerance when used (primarily) as a fungicide to growing crops using good agricultural practices.
- Use a higher rate to control diseases that may go dormant and overwinter.
- Controls diseases that may go dormant and overwinter.
- CUEVA 2.4 COPPER SOAP may cause some copper toxicity on some plant species
- Copper Soap Fungicide
- A liquid copper formulation for broad spectrum control of fungal and bacterial pathogens on greenhouse and shadehouse vegetables and herbs, ornamentals and turf.
- For use on listed field crops, nuts and fruit, including citrus and berries.
- Can be used up to the day of harvest
- For Roses & Listed Vegetables
- Controls (Powdery Mildew), (Black Spot) & Rust!
- Ornamentals and Turf
- Listed (Vegetables), Listed (Fruits), and Listed (Nuts)
- Manufactured under a license of Neudorff.
- Roses & Ornamentals: Controls black spot, rust, powdery and downy mildew.
- Listed Fruit trees: Controls peach leaf curl, brown rot, fireblight, scab, blossom blight, leaf and fruit spot
- Listed Vegetables: Controls (powdery mildew), (downy mildew), (botrytis), (alternaria leaf blight) and (septoria leaf spot).
- Use as a dormant spray for peach leaf curl.
- Controls peach leaf curl.
- Use for early and late blight on tomatoes (and potatoes).
- Controls powdery mildew
- Controls many listed plant diseases using low concentrations of copper.
- For a wide range of plant diseases: (powdery mildew), (rusts), (blackspot), (leaf & fruit spot), (downy mildew), (fruit rot), (late blight).

-Used to control a wide range of plant diseases: (powdery mildew), (rusts), (blackspot), (leaf & fruit spot), (downy mildew), (fruit rot), (late blight).

-Dormant and growing season liquid copper fungicide.

-Fixed copper is one of the oldest fungicides and bactericides, used to control a wide range of listed plant diseases. CUEVA 2.4 COPPER SOAP is a patented, fixed copper fungicide, made by combining a soluble copper fertilizer with a fatty acid. The copper and the fatty acid combine to form a copper salt of the fatty acid, known technically as a true soap. The copper soap fungicide controls listed diseases using low concentrations of copper. The net result is an effective vegetable, fruit and ornamental fungicide. CUEVA 2.4 COPPER SOAP decomposes to form soluble copper, and fatty acid, both of which can be used by microbes and plants. CUEVA 2.4 COPPER SOAP is suited for use in domestic circumstances, both indoors and outdoors.

-CUEVA 2.4 COPPER SOAP controls listed diseases of a wide range of plants, including many (vegetables), (fruit) and (ornamentals). As with most fungicides, CUEVA 2.4 COPPER SOAP acts to protect plants from infection. Therefore, it is important to have CUEVA 2.4 COPPER SOAP on the leaf, flower or fruit before the pathogen is able to cause an infection.

-A wide range of bacteria and fungi attack plants, however, they generally only cause a few types of diseases. When using CUEVA 2.4 COPPER SOAP, it is important to identify the type of disease in order to use the best method of disease control.

-**Powdery mildews** tend to occur on the upper leaf surfaces, as though a white powder was sprinkled onto the plant. Powdery mildews can form a dense, white, cottony mass, making the whole leaf appear white. They are also commonly found on stems. Powdery mildews rarely kill plants. Most fungal diseases require water to infect plants. Powdery mildews are unique in that they do not require water for infection. Hence, under greenhouse conditions, powdery mildews can become severe. Shade and dense plantings also promote powdery mildew. Powdery mildews commonly occur on the following plants: bean, beet, broccoli, Brussels sprouts, cauliflower, cabbage, cantaloupe, chicory, cucumber, currant, endive, gooseberry, grape, hop, kale, kohlrabi, lettuce, pea, pumpkin, rose, rutabaga, spinach, squash, strawberry, turnip and zucchini.

-**Downy mildews** tend to occur on the lower leaf surfaces. Downy mildews are much finer than powdery mildews, and appear as fine white cotton, similar to duck down. Downy mildews can rapidly kill plant leaves during wet, cool weather, but are inhibited by hot dry weather. Downy mildews commonly occur on the following plants: bean, beet, broccoli, Brussels sprouts, cauliflower, cabbage, cantaloupe, chard, chicory, chive, cucumber, endive, garlic, grape, hop, kale, kohlrabi, leek, lettuce, onion, pea, pumpkin, rutabaga, shallot, spinach, squash, tobacco, turnip and zucchini.

-**Leaf and fruit spots** are small brown or black spots on the leaf or fruit. They commonly occur on apple and pear (scab), as well as on most of the plants grown around the home and in the garden. These spots can be caused by a range of fungi and bacteria. Leaf and fruit spots are commonly caused by fungi belonging to the following genera: *Alternaria*, *Cercospora*, *Colletotrichum*, *Cylindrosporium*, *Gloeosporium*, *Glomerella*, *Gnomonia*, *Marssonina*, *Mycosphaerella* (*Didymella*), *Phomopsis*, *Phyllosticta*, *Septoria*, and *Sphaceloma*. Spots on leaves and fruit can expand and grow together. Leaf spot pathogens require water to infect plants. During wet weather, spots can develop into a **blight**, very rapidly, killing leaves, flowers and stems.

-**Rusts** are small orange blisters that appear on plant leaves, and that are full of orange powder. The orange powder is rust spores. Towards the end of the season, black spores are often produced. Rust is commonly found on grasses.

-**Fruit rots** commonly occur on strawberries, raspberries, and other fruit. They appear as soft, rotten areas on the fruit. Often the causal fungus can be seen growing and producing spores on the surface of the rotting area. Rots are often caused by fungi belonging to the following genera: *Aspergillus*, *Botrytis*, *Monilinia*, *Mucor*, *Penicillium*, *Rhizopus* and *Sclerotinia*.

- [telephone icon] Questions, Comments, Call X-XXX-XXX-XXXX [insert a supplemental registrant's telephone number] [insert company website] [computer icon]



-For Organic Production



-Listed by the Organic Materials Review Institute (OMRI) for use in production of organic food

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-www.neudorff.com



-Cueva™ is a trademark of W. Neudorff GmbH KG

-Contains Cueva™ Fungicide Concentrate, a trademark of W. Neudorff GmbH KG

-Made with Cueva™ Fungicide Concentrate, a trademark of W. Neudorff GmbH KG

-Refer to inside of label booklet for additional precautionary information and directions for use, including storage and disposal.

-Cultural Method to Assist in Reducing Plant Disease

Several common sense techniques can also be used to reduce plant disease. These include:

- Inspect the plants often for signs of disease or insect pests. Take appropriate measures when warranted.
- Promote healthy plant growth, but do not over fertilize.
- Do not grow the same types of plants in the same location in successive years.
- Control weed species around the garden that are related to the plant species that you are growing. Weeds are a source of plant pathogens.
- Space plants to ensure good airflow and drying after rain. Also, water plants in the morning to minimize the time that the plants are wet. Wet leaves, flowers and fruit promote infections by plant pathogens.
- Prune plants during dry weather to avoid wound infections.
- At the end of the growing season remove and compost all garden refuse. Garden refuse can act as a source of plant pathogens.

The registrant may use one of these optional statements, either:

**NOTICE TO BUYER**

Seller warrants that this product conforms to the chemical description on this label and is reasonably fit for purposes stated on this label only when used in accordance with directions under normal use conditions. This warranty does not extend to use of this product contrary to label directions, or under abnormal use conditions, or under conditions not reasonably foreseeable to seller. To the extent consistent with applicable law, buyer assumes all risk of any such use. Seller makes no other warranties, either expressed or implied.

OR

Unconditionally guaranteed by W. Neudorff GmbH KG. If for any reason you are not satisfied with this product, send proof of purchase to the address shown and we will gladly refund your purchase price.

Registrant: W. Neudorff GmbH KG, Postfach 1209, An der Mühle 3,  
31860 Emmerthal, Germany

US Patent Number: 5,246,716